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## Contributed Articles.

*On Important Apilarian Subjects.*

### No. 6.—The Harvesting of Extracted Honey.

BY CHAS. DADANT.

In running an apiary for extracted honey, there is but little outlay of expense, and that is one reason why it may be produced much cheaper than comb honey. Yet, to succeed

be inverted without raising them out, the work proceeds faster. We use a 4-frame extractor, the basket of which is 13 inches wide, so that two half-frames 6 inches deep can be placed side by side on each face of the basket. This gives us room for 8 half-depth frames.

The capping-can is also, to us, an indispensable implement. Nothing can well take its place, for the cappings, the pieces of broken combs, must be placed at once where the honey may readily drain out of them, and nothing answers the purpose but the capping-can. This is one of the very few original useful articles to which we lay claim as inventors—no patent, however. The capping-can is composed of two cans fitting into each other, the upper one having a wire-cloth



"Rose Hill Apiary," at Belleville, Ill., Mr. E. T. Flanagan, Proprietor.—See page 364.

well, a few implements are necessary. First, an extractor of good quality is needed. We have generally been using the Excelsior, but any good make is satisfactory. We would, however, recommend a 4-frame extractor with stationary basket in preference to a reversible basket. The 4-frame extractor does not occupy any more room than the 2-frame reversible, and if the cage is so arranged that the frames may

bottom, so that the honey drains out of it into the lower reservoir.

In a good season, it is well to have also two or three, or even four, strong tin pans made large enough to receive the supers. These pans are only  $1\frac{1}{4}$  inches deep, and are intended to catch the drippings, if there is any, that may fall from the combs of honey while they are taken out and hand-

led. Two or three robber-cloths (such as Dr. Miller describes in his "Year Among the Bees") made from coarse gunny-sacks, or any sort of coarse cloth with a stick or slat nailed at each end, and which are used to keep the honey-supers out of reach of robbers. A Bingham honey-knife, a smoker, a half dozen home-made brushes of asparagus tops or soft grass, I believe, will complete the outfit.

Let me here remark that a brush made of feathers, woolen goods, or other animal material, will not serve the purpose as well as a vegetable brush, as the bees evidently recognize the difference, for they are not prone to get angry from being rudely treated with a vegetable brush—probably owing to the fact that they are accustomed to hunting for a living among the grasses and the stems of plants, while all connections with animals are to them of a disagreeable nature.

But what need have we of brushes? Have we not the bee-escape? We have had this implement for so short a time that we are not yet fully aware of its usefulness. I must say that for our part we were very slow in adopting it, and that we considered it at first as one of the many catch-pennies with which so many beginners are enticed into spending their money. The bee-escape, however, proved to be more than we had anticipated, and we now have some 200 of them in use. But, in some cases, the bees do not all abandon the supers, and a brush is always useful.

We do not usually extract any honey until the crop is at an end. About a week after the cessation of the honey-flow is a good time to begin. On the evening previous to the extraction, we put on the bee-escapes. We use the Porter, which has so far with us proven very good. These escapes are fitted into a tight honey-board with a bee-space both above and below, and this is put on by gently smoking the bees, lifting the supers and placing the escape-board between this super and the brood-chamber. The next morning there are but few bees left in any of the boxes. We have seen a few instances when there were no bees left, but this is the exception.

There are two or three advantages in putting on a bee-escape. First, you get rid of the greater part of the bees. Then, if there are any brace-combs, or burr-combs, between the super and the brood-apartment, these are all broken, and the bees clean them of whatever leaking honey there may be, quietly and without danger of robbing. There is also a great advantage in not disturbing the colony, since all, or nearly all, the bees have left the super of their own accord.

As fast as the supers are removed from the hive, they are placed in one of the tin pans, and each comb removed in turn and transferred to another super, so as to get rid of all the bees that may remain. The supers are then carried, or wheeled, to the honey-room. We use a light wheelbarrow with springs, for which we think we must give credit to Mr. Root. This is a great labor-saving implement when one has to remove some 1,500 to 1,800 pounds of honey in a day.

If there is no honey in the fields, the work must be done very carefully, avoiding to leave any of the combs exposed to the reach of robber-bees at any time, and the robber-cloths are very useful to keep the supers thoroughly covered while they are handled and transported to the honey-room.

In the honey-room it takes a man with nimble fingers and a dextrous hand to uncap all the honey that two persons can bring him from a well-stocked apiary; but if he has a quick, watchful assistant, he may be able to uncap combs enough to run out some 1,500 pounds of honey in an ordinary day. There are many combs which are not sealed at all, unless the season has been a very prosperous one, and these are soon disposed of. The combs are then fitted back in the supers, to be returned to the bees in the evening, unless the crop of honey is still continuing, when they may be returned to the hives as fast as extracted. But if the returning of the supers, sticky with honey, causes any uproar in the hive, it is much safer to keep all until evening in the honey-room, when, with the help of everybody, the supers may be put back in a very short time, and the bees have all night before them to cleanse them and put them in such shape as to be able to defend them against intruders.

We always return the supers to the hives, even if there is no probability of their being again filled that season, because they are in better shape to be preserved through the winter. The combs out of which honey has just been extracted are always more or less dripping with honey, and even if they were only sticky with the sweet nectar they would be apt to attract insects, mice, or to sour, for honey has a strong hygro-metric properties, and attracts moisture much as salt does; so that, in damp weather, its volume increases when it is exposed to the air, and combs, which were only "sticky" when the weather was dry, become actually "leaky" in damp weather.

The receptacle in which you place your honey must depend to some extent upon the shape in which you expect to market it. If one could tell just in what shape the honey would be sold, it would be best to put it up in that shape at once. But as the retailer may want it in all sizes of packages, from a 60-pound can down to a one-pound bottle, it is generally best to put it up first in large receptacles.

The shape of honey-packages, and the care to be given the honey, also the rendering of the cappings, with a consideration of the different grades of honey, will be treated in a subsequent article. Should some points lack in clearness in the methods heretofore given, I shall gladly reply to any queries that may be made.

Hamilton, Ill.



## Dequeening—How One Bee-Keeper Does It.

BY C. H. CHAPMAN.

'Tis with a sense of mingled "regret, remorse and shame" that I think of my supposed-to-have-been-brief report for 1894, on page 78, as I supposed that all bee-keepers knew full as much, or more, of dequeening than I, and surely more of rearing queens. I have waited long and anxiously for some person of ability to take the matter up and give an article on dequeening, but "how vain a thing is hope!"

First, I will say that this mode of management is not my own, but just how or where I caught the idea, or to whom the credit is due, I am unable to say, but I think it is due to Mr. P. H. Elwood, of New York.

To prevent an undesirable amount of increase, requiring extra outlay of capital and labor; to increase the income from what I already have, by keeping my hives, during the short honey harvest allotted me, crowded to the uttermost with bees, I resort to dequeening nearly all colonies.

On page 168, Mr. W. W. McNeal wishes to know "about how many colonies figured in the experiment." Ninety colonies were dequeened, 10 worked by division, and 12 by natural swarming. I have worked thus for three or four seasons.

On page 296, F. L. Thompson gives in brief Mr. Alkin's method of dequeening, in which I think he is somewhat mistaken in the way Mr. Alkin secures his young queens, for such queens would be poor indeed. I wish Mr. Alkin would give us an article on this theme.

Now to the work: Get all colonies as strong as possible; see that all the queens have one wing clipped; have a goodly number of queen-cages in readiness; allow the swarm to issue the same as in natural swarming, cage the queen, remove every queen-cell, let the swarm return, take the very best possible care of the queen, and in seven or eight days again remove every queen-cell, and leave your bees *hopelessly* queenless for four or five days. This is the key to use every time, for if the queen is returned when the last batch of cells is removed, swarming will be pretty sure to follow in a few days. Hopeless queenlessness seems to cure the swarming-fever. Is it not all plain and simple?

For cages, take old sections, cut a thin board, bore a 3/4-inch hole through it, cover with a button, tack it in one side of the section; cut wire-cloth 5x6 inches, bend down over the other side, and your cage is done. Now with a small funnel, waxed and sanded inside, you can run in bees at a rapid rate by shaking a lot of bees off a comb on the ground. Set the funnel over them, and through the hole in back of the cage run in 50 or so of bees with the queen; turn the wire-cover side down, invert and insert a vial of honey fixed so the bees can suck the food, remove to some cool room, and your queen is always ready.

Now for the queens: Select such colonies as you wish to rear queens from, and mark them (any way you please). When the swarm issues, let the bees return, *leaving all the queen-cells*; at your leisure examine to ascertain how many good, large queen-cells you have, form your nuclei, give each a cell, and you will have queens as good as the best. Never give a dequeened colony anything but a good laying queen.

To me it is necessary to have all hives numbered, so that a simple, accurate account of everything may be kept. Then with a piece of clean section and pencil ever ready, nothing is left to memory. Perhaps it is well to return the queen to her own, as then she will be less likely to be for an undue time removed and perish. If you have young laying queens use them in place of any queens that do not please you. To return your queens, simply smoke them in at the entrance.

If all is not plain, please say where it lies, and I will try again. Soliciting friendly criticisms, I close.

Cohoctah, Mich.

[Perhaps Mr. Alkin will describe his method of dequeening, for the benefit of the readers of the American Bee Journal.—EDITOR.]



### What Dr. Miller Thinks.

**FOUL BROOD IN HONEY.**—It seems to me Wm. McEvoy might have confined his whole article to the one statement on page 326, that Dr. Howard received honey from foul-broody colonies "and then with a microscope examined the honey and found the living germs of foul-brood in it." Not that the rest is not interesting reading, but the only way to get away from the belief that foul brood can be carried by robbers is to say that Dr. Howard was mistaken and didn't find foul-brood germs in the honey. That one fact, if left undisputed, cannot be smothered with bushels of theory.

**PLANTING FOR HONEY.**—Mr. W. H. Morse's encouraging words with regard to planting for honey suggests the thought that bee-keepers can often get their neighbors to do the planting. Although planting linden trees may not bring any immediate return in honey, yet when shade trees are to be planted it will be a good deal better for the bees if such trees are planted as will produce honey. Where lindens are not already plenty, it is plainly a gain to have a single tree planted within a mile or two. So if it will pay me to plant trees on my own land, it surely ought to pay to plant them on my neighbor's land, for in that case I get my rent free. If I can get him to plant trees that I furnish him free, so much the better.

**HONEY-LOCUST.**—Dr. Brown, on page 330, places honey-locust at the head of the list of mellifluous trees cultivated for ornamental purposes. Does that mean it's better than linden? Possibly the Doctor thinks linden is not among the trees planted for ornamental purposes, but I'm sure it is in some places, and it's among the finest.

**CUTTING OUT QUEEN-CELLS.**—A plan is given at the bottom of page 330, by Dr. Brown, to prevent second swarms, but there's one trouble about it, as he mentions above, that it's a difficult thing always to be sure of getting every cell. Bees are smarter than bee-keepers, and when they undertake to cut out queen-cells they don't miss any. So you can manage to get them to cut out the cells without missing, and with much less time on the bee-keeper's part. When the prime swarm issues, put it on the old stand, setting the mother colony close beside it. In five to seven days remove the mother colony to a new location, and the field-bees will desert it and join the swarm. The depletion and the fact that no honey is coming in discourages any idea of further swarming, and all cells are destroyed after the young queen emerges, or if any are left they are destroyed after emerging.

**TEMPERATURE OF CELLAR.**—On page 337, O. E. Douglass tells about his bees going safely through the winter in a cellar with a constant temperature of 58°. According to the general teaching those bees ought to have gone to brood-rearing and then come out in bad shape in the spring. But is that teaching always correct? Bees stand for weeks in the fall with the temperature above 50°, and have no thought of brood-rearing if no honey is to be had. The excellent ventilation no doubt played an important part in Mr. Douglass' case, and I suspect that the trouble of Mark D. Judkins (same page) may possibly have been want of proper ventilation of the cellar.

**DOUBLE VS. SINGLE BROOD-CHAMBER.**—Query 972, on page 339, shows diversity of opinion. There seem a majority who believe more brood will be reared if all the room is on one floor. Very few, however, seem to know anything about it, merely giving their guess in the case, and some frankly say they don't know. Doolittle bases his answer on his experience, and so does Secor—but they reach opposite conclusions. I wish Doolittle, Secor, and others, would give us particulars as to their observations.

**ABOUT SWARMING.**—On page 311, Adrian Getaz hints a desire to have me tell what I don't know about swarming. It would take more than one number of the "Old Reliable" to contain it all, for I have a mass of ignorance on that topic that has been accumulating for years. Just when I'd think I'd found out some on thing about it, the troublesome bees would cut up some caper that would knock my notions all endwise.

Friend Getaz remarks: "The Dadants say emphatically that the chief cause of swarming is the lack of room for the queen to deposit her eggs, or for the bees to store their honey." My own experience disproves that. I've had bees take it into their heads to swarm when they had 16 frames, not crowded in any way. And not so very few cases, either.

May 23, this year, in spite of the preceding 10 days of such cold weather, I found a colony with a number of queen-cells, having two stories of eight frames each. I think those cells meant swarming. I have entire confidence in the assertion of the Dadants, that they have so little swarming with their large hives, but with just as much room in my hives why should the result be different? Is it because my bees have two stories instead of one? But the queen seems to go back and forth from one story to the other, and the colony I just spoke of had brood in 11 frames. I don't seem to know much about it.

The opinion that Friend Getaz expresses, that the presence of the queen-cell is the true cause of swarming, seems to be substantiated by the experience some one gave, that inserting a sealed queen-cell caused swarming. And yet I had one colony that after being balked several times, swarmed out with only one cell of brood in the hive, and that only an egg. Even supposing the queen-cell is the miscreant that causes so much trouble, the question still remains—what causes the construction of queen-cells? I don't know.

I think Friend Getaz is right in thinking the queen doesn't lead or start the swarm. I had a swarm issue from a hive from which I had removed the queen perhaps an hour previously.

If any one knows exactly what it is that makes bees swarm, let him please rise and tell. I don't know.

Marengo, Ill.



### More "Talking Back"—Hives, Frames, Etc.

BY F. L. THOMPSON.

On page 237, Gleaner fishes for comments, by those who want 10 or 12 frames an eighth larger in size, on the statement that six 16x9 frames with a good queen will be found all that is required to keep a hive well stocked with bees.

In the first place, "frames an eighth larger" is something new. I thought it was a fourth. Then, the statement may be admitted without invalidating any claims. The word "hive," and the phrases "good queen" and "well stocked" are so elastic, don't you know?

But without any quibbles, just look this supposition squarely in the face: If nobody had ever used a capacity of more than four frames, if none of us had experience with anything else to look back on, do you suppose that if the capacity question was brought up, that the vast majority would find anything out of the way with the accommodations for their bees? Fun was poked at Dr. Miller because he said that if small brood-nests were the thing, and eight frames were good, six, according to that reasoning, ought to be better yet. But I believe that his implication (that such reasoning is fallacious) was about right.

Mrs. Heater said, in reply to Query 950, "Look at a strong colony clustered on the ordinary frame, and you will see by the shape and size of the cluster, that it is very well adapted to their needs;" and Mr. Demaree said, "Time and use have proven that the Langstroth frame is not too shallow to hurt." I really don't know any reason why I shouldn't look at a strong nucleus, then, on little frames made out of sections, and say that the shape and size of the cluster show that such a frame is very well adapted to their needs; or why it should not be said that time and use has proven that the Bingham frame is not too shallow to hurt.

The truth is, bees will look just as contented and happy on one kind of frame, or in one size of hive, as another; they will have brood, and surplus honey, and drones, etc. Most writers on the subject have been delightfully consistent in evading the real point of the discussion, to-wit, that under ordinary circumstances, in large hives, the average colony attains a certain degree of development; that it takes more than one year (not merely one spring's growth) for it to become thoroughly established in this development, which does not depend upon the average queen more than it does on the bees; that the question at issue is, whether it pays better to cut down the bees every year (i. e., use a small chamber) and let them climb up part way again, like a tree that is pruned (and keep a greater number of colonies to make up the difference), or let them attain their development unchecked, trusting to the reserve power accumulated to retain it.

It should be distinctly understood that the small brood-chamber is abnormal for an established colony which does not swarm—not perhaps the first year, or even the second—but in the long run. When that is admitted, there is still plenty to be said on both sides. So I haven't the least doubt that those Australian bee-keepers find six frames enough to keep their hives what they call "well stocked."

One thing is certain, the small bee-keeper has been left out of the discussion entirely. To him, a colony is a colony, not a varying fraction of his bees; a hive is a hive, and a queen is a queen. He will get more honey, after the first few years, from 10 large hives than from 10 small ones, and if he ever finds that out, he will not be likely to keep 15 small ones instead.

If a single colony in a large hive, after developing in proportion to the size of the hive, gathers 75 pounds of surplus when it would have gathered 50 pounds if its development had been kept down by a small hive, then 100 such colonies would suffice for a location which would require 150 colonies in small hives to "lick it up." Isn't that just as fair a statement as to say, "Why not keep 150 colonies in small hives as well as 100 in large ones?" It is a poor rule that won't work both ways. Or, if a colony in a large hive requires to be fed 60 pounds during the year, it would not require more than 40 pounds if its development had been kept down by a small hive; but the number of colonies in large hives sufficient to stock a location would collectively use up no more sugar than the number of small colonies requisite for the same purpose.

Mr. Davenport, on page 231, argues the matter as if the man who preferred large to small hives would necessarily keep the same number of colonies in both cases; but if his arguments are scrutinized closely, they will be found to contribute but little to the small hive side of the question, but rather to the proposition, "It is six of the one, and a half-dozen of the other." The only statement he makes which seems to give a positive advantage to the small hives is, "With big hives, where no feeding is done, the season is often an entire failure." But it is not unlikely that a considerable percentage (enough to account for the word "often") of the big hives referred to contained colonies in the first or second year of their existence, which were further embarrassed by being in an apiary of just as many colonies as would be needed for the locality if they were all in small hives.

Certainly, it is hard to imagine why a fixed proportion of bees to hive capacity, and never a total too great for the locality, should not produce the same results when the total working force is the same. In fact, if the proportion was invariably maintained, the presumption would be in favor of larger and fewer colonies, for comb honey at least.

Mr. Hutchinson makes, or rather hints at, the same point in the April Review, by saying: "If a man having an apiary of 10-frame hives should change them for 8-frame hives he would thereby increase the egg-producing factor (the queens) one-fourth, and the probabilities are that instead of having less bees, there would be an actual gain." To increase the egg-producing factor one-fourth, while maintaining in theory the same number of eggs, is of course neither a loss nor a gain (if queens, and extra hives and labor, are supposed to cost nothing). Why should there be an actual gain in practice? is the question. Apparently because the proportion of bees to hive capacity is *not* as invariably upheld in large hives as in small ones. May not this be due to the large portion of partially-developed colonies, when swarming is allowed? I wonder if we have not been at fault in including the records of swarms of the previous year, in getting at the capacity of that "average Italian queen" before the flow.

And right there is where Dr. Miller's point comes in again. If the queen in an 8-frame hive comes nearer to filling up the 8 frames with brood than she would 10 frames, the probabilities are that she would crowd 6 frames still closer; and, if we only leave out the one item of warmth, she might run 4 frames a little closer yet. Very well, then; from that point of view, perhaps Scylla and Charybdis are wider apart than we thought—perhaps arrested development, combined with a too flat chamber, was what made the just medium halt at 8 frames—if the 6-frame is not Scylla, perhaps the 10-frame is not Charybdis—and one more reason for doing away with swarming.

In other words, the next thing in order is contributions detailing observed facts relating to the maintenance or non-maintenance of the proper proportion of population of established colonies in big hives; and, as there is a scarcity of data on that point (so few really large hives in the country), perhaps it would be well to not regard the small-hive testimony as overwhelming just yet. To put it still more concretely, is there a larger percentage of colonies which, after living in big hives three or four years, only about two-thirds fill the hive with bees, than there is of such colonies in small hives?

If disputants would fight it out on that line (with due regard for locality), instead of wasting powder on questions like, "Are eight Langstroth frames enough for the average

queen?" it would be more to the purpose. Much depends upon the statement of issues. Experience is useless unless rightly interpreted.

IS IT AN OBJECTION?—On page 239, Mr. W. C. Frazier says the most serious objection to the 11 $\frac{1}{4}$ -inch depth for a comb is that it breaks and melts down easily. How serious the objection is he does not say. But it may be doubted whether "serious" properly describes the objection, when the Dadant frame is in common use in Italy (a warm country), France, and Switzerland, often unwired, and we hear nothing of complaints on that score.

THE ENDS OF THE FRAMES.—On page 101, Mr. Abbott says: "The place for the ends of the frames is inside the box that forms the brood-chamber." As there is a hive with projecting frame-ends on the market, to which not one of the objections applies which he gives, it would seem that that statement ought not to be made a general one.

PATENT HIVES.—Just at the close of the moth-trap era, and other contrivances alluded to by Quinby in his book, it might have been "pretty generally understood that *all* patent hives are humbugs" (see page 151). But the world has moved since then.

COLORADO WINTERS.—Mr. Abbott is quite right in doubting the "mildness" of Colorado winters, on page 90. The word "mild" requires too much careful explanation after people get here.

COLORADO ALFALFA REGION.—On page 183, "the alfalfa regions of Colorado" as a place to produce honey should not be understood to mean about Denver, or anywhere where there are plenty of bee-keepers already. There is considerable complaint of overstocking.

THE DIVISIBLE BROOD-CHAMBER.—On page 229, if it had been shown that no more brood is produced in the divisible brood-chamber hive than in others of the same depth; and that it does no particular good to eliminate the strip of honey intervening between brood and sections; and that other hives can be handled with no more work, this hive would have been killed a good deal "deader."

Arvada, Colo.



## Results of Experiments in Wintering Bees.

BY HON. R. L. TAYLOR.

The last mentioned experiment is of more than ordinary interest and importance on account of the fact that the ablest and most experienced bee-keepers are divided in their opinions as to the chief cause of the dysenteric ailment brought on during confinement in winter; one party attributing it to improper food, and another to super-abundant moisture. The colonies selected for the experiment were taken indifferently from the apiary and did not differ greatly from the others either in quality of their stores, or in their numerical strength, except that it would have been difficult to have found another colony in the apiary as weak as No. 1, unless it might be among the four or five abnormal colonies.

I have already alluded to the use of a hygrometer in the bee-cellar during the winter to determine the degree of moisture in the air, and it should be said in addition that it showed almost uniformly a difference of one-half a degree between the dry-bulb and the wet-bulb at a temperature of 43° to 45° (which was generally that of the cellar), indicating that the percentage of saturation was about 96, lacking only about 4 per cent. of complete saturation.

In the case of the colonies under consideration no effort was made to determine the degree of saturation of the air immediately surrounding them by the use of an instrument, the advisability of that course not having been suggested early enough to allow suitable arrangements to be made for that purpose, but all the indications were that the saturation of the air was complete.

The cover used for the top hive was a flat board several inches wider and longer than the hives, purposely chosen of that size that it might serve to hold the wet sheet free from the hives. It was raised a little from the hive by the insertion of thin strips, and it was found on the removal of the sheet on April 8, to be loaded as heavily as possible on its under side with great drops of water which fairly poured off when one edge of the cover was raised a little.

The covers of No. 3 and No. 5, which were also raised



from the hives to give upward ventilation, were in like manner loaded with water, to an equal extent, indeed, with those of Nos. 2 and 4 which covered their hives tightly so as to prevent all upward ventilation. The upper surface of the cover to No. 5 was partly covered with a jelly-like substance having the appearance of the "mother" of vinegar. The inside of the hives were very damp, and in places so wet that water trickled down. The combs were damp, and to a considerable extent moldy outside of the cluster. These hives were all the "New Heddon," of two sections each.

It is necessary here to explain that the bees in the cellar referred to have wintered exceptionally well. Out of a little less than 150 colonies, the loss has been only five, and the loss of these is explained by queenlessness undiscovered in the fall, or by other abnormality of condition, so that it may be affirmed that they wintered almost perfectly, as almost all rate from strong to very strong in numbers, and as to health they are in excellent condition almost without exception, and yet the hives of a large portion of them—I estimate from one-third to one-half—show more or less of what might be taken to be the characteristic marks of dysentery, but these are always the outside the cluster, and generally outside the hive.

It may be that this is an indication of incipient dysentery, or diarrhea, as it is perhaps more generally called. But I think it will not be questioned that it is the retention of the feces that causes the disease whose effects are to be dreaded, so I prefer to think that when the temperature is such that the bees willingly go outside the hive to respond to the call of nature, they thereby escape even the incipient stages of the dreaded disease even though the other conditions are such that they cannot safely take wing. In other words, flight is not necessarily essential to a sanitary condition. Every observant bee-keeper of experience has noticed, when the sun suddenly breaks out about the first of June, after a storm that has kept the bees confined two or three days, and the bees rush out, how they may be seen on all sides sitting on the leaves of the shrubs and bushes, at the same time voiding their feces. But this has never been taken for signs of disease.

This, however, is not the real question at issue, but what I have said, taken with what is to appear further on, will enable the reader to form a judgment as to how the five colonies in question wintered in comparison with those deprived of the luxury of a wet-sheet envelope. The real question is whether the necessity for the voiding of the feces is caused by the high percentage of moisture in the atmosphere, or by something else. Although in the present case it is claimed there was only little if any of the disease known as dysentery present, still it may be granted that had the conditions been such that the bees would have felt compelled to retain their feces indefinitely, the disease would doubtless have been induced thereby.

It will be found difficult, if not impossible, I think, to find any indication that the conditions within the wet sheet were more favorable to the development of the disease than those outside of it. However, since the relative humidity of the air outside is so high that it may with much show of reason be claimed that the total possible difference between that outside and that inside the sheet is not sufficient to warrant an expectation of any great difference in results. To meet such a case it may be of use to compare the results of the past winter with those reached in wintering bees in the same cellar during other years.

It can hardly be said that the relative humidity of the air in a given cellar kept under like conditions is a very variable quality, taking one year with another, and certainly the humidity of the air in the cellar in question could hardly have been greater during the past winter than during previous winters, for not within the memory of the living has the ground in this part of Michigan been so dry during the winter season as it has during the past winter; nevertheless, never during the eight seasons which have seen this cellar in use, have the evidences of the approach of the danger of undue accumulation of feces been more generally seen, although in two or three years many times the damage was done, for though the cases were comparatively few, the real disease had been induced by undue retention. As the result of another winter's campaign, out of almost 200 colonies, at most but one colony showed any sign of the trouble. This question suggests itself: Which is the more likely, that the humidity of the air in the cellar, or the quality of the stores possessed by the bees, varied from one year to another?

I now give a detailed statement of the condition of the five colonies in tabulated form, upon their removal from the cellar on April 8, together with the weight of each when placed in the cellar on Nov. 22:

Designation of Colony.	Weight Fall, lbs.	Weight Spring, lbs.	Stores consumed from Nov. 22 to Apr. 8, lbs.	Signs of Excrement.	Signs of Mold.	Spaces occupied by bees.	Standing as to strength.	Upward Ventilation.
No. 1	43½	37½	5½	little	some	2	2	Yes.
No. 2	45½	38	7½	none	some	5	6	No.
No. 3	43½	38	9½	little	some	6	6	Yes.
No. 4	54½	48½	6	some	much	7	7	No.
No. 5	59½	41½	15	much	very much	6	2	Yes.

Little requires to be said here by way of explanation, and I need only state that the bees of No. 5 voided much excrement on the front of their hive when removed from the cellar, which the others did not do; and that while I give in one column the number of comb-spaces occupied by the bees as an indication of strength, I have added another to rectify the other to some extent based on 1 to 10—1 meaning weakest, 5 what would be deemed of average strength, and 10 the strongest.—Bee-Keepers' Review.

Lapeer, Mich., April 19, 1895.

## Notes AND Comments.

CONDUCTED BY

Rev. Emerson T. Abbott, St. Joseph, Mo.

**Hiving Swarms.**—"Dr. Dublin not only makes a practice of hiving the swarm on the old stand, and removing the old colony to a new one, but also sets the old colony on the stand of another strong colony which has not swarmed, removing the latter."—Notes from Foreign Journals, in Review.

This mode of procedure is a little peculiar, and somewhat out of the regular order. I wish Mr. Thompson would give us the Doctor's reason for the last move, if he can do so. I always move the old colony to a new stand, but do not understand exactly why it is placed on the stand of a strong colony and this removed. Will this not cause the old colony to send out another swarm as soon as a queen is hatched out? or does the Doctor cut out all of the cells and introduce a laying queen at once, and thus have two colonies instead of one working with all the vigor and seeming enthusiasm of a new swarm?

**How is This for Candy?**—"A correspondent winters his bees successfully by kneading four parts of powdered sugar with one of warm honey, spreading with a rolling-pin, and placing the cake on the frames over the cluster."—Quotation from a French Journal.

Michigan, and the people who live in climates where a sugar cake will never do, will please take notice. The only fears I would have about this mixture is that it would prove too "soft." If it does not, it will fill the bill of "plenty of food of the right kind in the right place."

### Honey as a Preventive of Diphtheria.

"Dr. W. L. Smith, of Glanford, Ont., writes to say that he has observed that where honey has been freely used as an article of diet, cases of diphtheria have not been met with."—King's Medical Prescriptions.

I do not want to steal Dr. Peiro's thunder, but will add that a little powdered sulphur mixed with extracted honey until it forms a thick paste, and taken in teaspoon doses, will be found good for a great many of the ailments of children. Keep them out of the rain and damp while they are taking the mixture.

**Another Cure for Stings.**—"A man was stung above the eye and the part was badly swollen. A lotion of potassium permanganate (6 grains to 1 ounce of water) was applied; in five minutes the pain ceased, and in six hours the swelling had subsided."—Dr. Hobbs, as quoted by Druggists' Circular.

This note speaks for itself, and needs no comment. I have not tried it, as I seldom pay any attention to a sting beyond the immediate removal of the stinger by a scraping movement of the finger-nail.

**Number of Plants.**—"Professor Saccardo calculates the number of species of plants at present known as 173,706, distributed as follows: Flowering plants, 105,231; ferns, 2,819; other vascular cryptogams, 565; mosses, 4,609; hepaticæ, 3,041; lichens, 5,600; fungi, 39,603;

algæ, 12,178. Professor Saccardo thinks that the total number of existing species of fungi may amount to 250,000, and of all other plants to 135,000."—Druggists' Circular.

What a field for study is here presented! Who can tell how many out of the 105,231 flowering plants secrete nectar or furnish an abundance of pollen for the bees? It would also be interesting to know just what proportion of them depend upon some kind of insects for perfect pollination.

## Canadian Beedom.

Conducted by "BEE-MASTER."

### New Breeds of Bees.

The earth has been ransacked from pole to pole for new races of bees, but it is extremely doubtful if any improvement will be made on the varieties we now have, except by judicious breeding and crossing. Perhaps it may be possible to fix a strain that will combine the best qualities of all known varieties, and it is in that direction the efforts of queen-breeders should lead. It may be with bees as with cattle, and a certain standard of excellence when it is reached may prove to be the highest that can be attained. Absolute perfection cannot be looked for in this world. The most we can hope to do is to approximate the desired, but after all, inaccessible goal.

### The Eight-Frame Hive.

There has been, as we all know, a well nigh interminable discussion in regard to the respective merits of large and small hives, but for a convincing plea in favor of the 8-frame hive, commend me to Mr. C. Davenport's article in *Gleanings* for May 15, with all of which I thoroughly agree, except the preference expressed for the Hoffman frame, the objection to which seems to me to be, the awkwardness of having to use a follower. But this awkwardness may be owing to my stupidity. I think Editor York would do his readers a good turn by scissoring so much of that article as relates to the 8-frame hive.

[I will try to give soon the portion of Mr. Davenport's article referred to by Bee-Master.—EDITOR.]

### An Unwelcome California Echo.

Among California echoes by Rambler in *Gleanings* of May 15 is this one:

"Messrs. Gemmill and Alpaugh, of Canada, made a host of friends while here. We should like to annex them to California. It would lengthen their days of usefulness, and give us two more live bee-keepers."

Rambler, "Thou shalt not covet." These men are two of the best bee-keepers in Canadian beedom. We can't spare them. They can live just as long here in Canada. If they do not work too hard, and if each of them will persist in doing the work of two men, they won't be long-lived even in the angelic climate of California. Can't you make some more live bee-keepers for yourselves, without coaxing away any of the comparatively few we have over here? If you get Gemmill away from us, alas for the prospect of our having any more "honey-bee concerts." If we should ever have another, after losing him, the old Scotch song—"Will ye no' come back again?"—would be in order, and every bee-keeper would join in the refrain.

### How One Colony Acted.

I think I narrowly escaped having the earliest swarm in all my experience as a bee-keeper. For two or three days prior to the cold snap which befell us May 11 and 12, a very populous colony began to hang out in clusters, causing me to say to myself, "Those bees are getting ready to swarm." The drop in the mercury from 90° to 24° drove them all in-doors, and the continuous cold must have made them form the winter cluster over again, for hardly a bee showed face at the threshold for more than a week.

The first really warm day was May 22. Partly out of curiosity, and partly to ensure myself against all risk of their

swarming in my absence, I gave the colony a thorough examination. It was crowded, I had almost said, to suffocation. Preparations had been made for swarming, but the cold snap had caused the idea to be abandoned. Several queen-cells of recent construction were to be seen, but they had been cut down, and not one had a living occupant. A recurrence of the intense heat would cause the bees to swarm in the absence of all preparations. I knew this quite well from past experience. The honey harvest was more than ever in the distance through the nipping of the fruit-blossoms. I could not relieve the crowding by putting on sections, and yet I did not want to weaken the colony, for here was a force of workers just ready to make things hum as soon as there was a honey-flow. So I took out one frame of pretty well advanced brood, and gave it to a much weaker colony, putting in place of the removed frame of brood, a frame of brood-foundation. I wonder if this was the best thing to do under the circumstances. It seems to me this is a case worthy of being discussed by some of our experts. If that swarm had issued the last day of the hot spell, it must have been fed or it would have starved, for I have said, there was no flying for more than a week, and if there had been there was no honey to gather.

I calculate that as soon as settled warm weather comes again—if it ever does!—those bees will prepare to swarm, and when the queen-cells approach the stage of ripeness, I shall divide the colony. Now here is a case in which prevention of swarming is only possible by removing part of the bees. It is plain as daylight to me that you cannot make hard and fast rules, or get up an automatic apiary that will run itself in the matter of swarming, without a presiding human mind to regulate things.

I have made a prediction as to what will happen if warm weather ever comes again. This is May 27, and not a bee pokes its nose outside the hive! So one can hardly help querying whether warm weather will ever come back to us. It seems pretty certain that if the present season's character continues to be one of extremes as it has been thus far, it will develop some new conditions which will necessitate a revisal of our theories about swarming, and possibly other things in practical bee-keeping.

## Questions AND Answers.

CONDUCTED BY

DR. C. C. MILLER, MARENGO, ILL.

[Questions may be mailed to the Bee Journal, or to Dr. Miller direct.]

### A Free Advertisement.

This is to advertise that I'm not in the supply business, nor in the queen-business, so don't write asking me for prices or catalogues. All I have to dispose of is answers to questions, and I run out of sorts in that department sometimes, so that I have to scratch around lively to find an answer that will fit some of the questions that are sent in.

While I'm at it, I'll mention another thing: Please don't ask me to send answers by mail. If you knew how busy I am, you would hardly ask it. Besides, it is hardly fair to the publishers and the readers of this journal, for they pay for all the information to be had, and if I should answer all letters by mail, the other readers would have no benefit from it.

Just one more thing: Be sure to say whether you want an answer to your question in the *American Bee Journal*, or where.

Now send on your questions.

C. C. MILLER.

### Cutting Out Queen-Cells to Prevent Swarming.

Enclosed please find a weed. I should like very much to know what it is. The whole country here is literally carpeted with it, and bees are very busy working on it. It smells very sweet when in large quantities.

1. Mr. Adrian Getaz says on page 311, that "the presence of queen-cells is the true cause of swarming." Therefore, could not swarming be kept out of the minds of the bees by cutting out every queen-cell in its incipency, every day, or would this work evil and havoc?

2. I have one colony with so many bees in it that they seem hardly to be able to get in all together at night. The combs are jam full of brood and honey, and the tops and outside ends of the frames being sealed, I have put supers for



comb honey in the upper story, and although there is not as yet a sign of a queen-cell in the hive—and hardly any room for one—the bees will not go “upstairs.” I have put in three sections containing drawn-out comb, but no honey (I have no comb with honey, such not being my lot last year), but they still refuse. What would you advise? I am in hopes this colony will not swarm for a good while yet. They are 3-bands and 5-bands, but are truly possessed of an extremely evil spirit. They will hardly let me come within 20 feet of the hive, which stands near a gate, and they ought to be used to the “traffic.” Once or twice I have been forced to sprinkle a little tobacco in the fuel in my smoker. My other Italians are very gentle.

3. Honey is coming in plentifully now. I was out in the country the other day, and learned a “kink” (?) from an old fossil bee-keeper. He says: “My experience shows me that it is a great mistake to let the bees have much honey to go into the winter on. It makes them lazy, and I want my colonies with not more than a handful each at the beginning of spring, so that they will not swarm, and will be in better condition in summer and fall to ‘make’ honey.” How is that for orthodox doctrine? I tried to argue that he should have all the bees possible for fruit-bloom, and from then on we have almost a continuous flow from wild flowers, mesquite, catclaw, sumac, cotton, etc.

D. R.  
Abilene, Tex., May 24.

ANSWERS.—It's hardly worth while to send plants to me. I'm not much of a botanist, and at best I am only familiar with the honey-plants that grow in my own neighborhood.

1. That's been tried over and over again. Sometimes it works, but oftener it doesn't make much difference. Looking closer at your question, I see you talk of cutting out queen-cells every day. I'm not sure whether any one has tried daily cutting out, but the remedy would be worse than the disease. For it isn't the work of a minute to cut out all incipient queen-cells, and the best you can do you will sometimes miss them. Still, if you made it a daily job, I hardly think a careful operator would let any of them go to maturity. But if you care to try the experiment, I think you will not find it “work evil and havoc.”

2. I wish I was near enough to look into that hive. There must be something peculiar about the case if they are bringing in plenty of honey, are crowded in the brood-nest, and refuse to enter sections having drawn combs. Of course they have free access to the super. Cut out a piece of drone-brood and put in a section. If that doesn't “fetch” them, they're bewitched.

When I have bees as cross as you tell about, there's a death in that family, and a new queen introduced.

3. I've sometimes gone on the principle your friend does, and had colonies in the spring with so few bees there was no danger of their being lazy, and they might have done great things if they hadn't “up and died.”

#### Introducing Clipped Queens.

Would a young laying queen be accepted as readily by the bees if her wings were clipped before introducing? It is very difficult for me to find queens in a hive of bees, and I propose to ask the sender of the queen to clip her before caging, if it will do as well.

C. J. W.

ANSWER.—I've introduced hundreds of queens with their wings clipped—in fact, I'm not sure that I ever introduced a queen with whole wings. I don't think the bees pay much attention to the dress their mother wears.

#### Management During Swarming-Time.

1. I have as many bees as I want. If I place a queen-trap on the hive, so arranged that the queen can return to the hive from the trap, and leave the trap on until they stop swarming, what will be the result? Will I get any surplus?

2. Twelve colonies out of 14 in 10-frame hives have swarmed this season, and only one out of 26 in 8-frame hives. Is not that rather unusual? I suppose the colonies in the large hives had more surplus left over, and built up more rapidly.

F. T. B.

ANSWERS.—1. Yes, you'd get some honey, but very likely you'd get your bees in bad condition. For somehow (and I'm whispering this to you, for others may not believe it), when young queens are hatched out, and bees have the swarming-fever, the young queens seem to get through the excluder

zinc. Then they take French leave with a swarm. At least they did so for me. In some cases it worked all right. I believe it might be well, however, for you to try it on a small scale. But you'll have to keep track of them in some way, and take away the trap soon enough for the young queen to be fecundated, for the old queen will be killed, and all the young queens but one. Perhaps a month after the first attempt to swarm will be time to take off the trap.

2. Your colonies in 10-frame hives swarming more than those in the 8-frame is decidedly unusual.

#### Transferred Colony Deserting the Hive.

I transferred 5 colonies of black bees on April 22, the old fashion way, from a box-hive to a Langstroth hive. I gave them all their brood and straight comb, and the day after I transferred the colony they left the hive, brood and all. I did not see them go, and have not seen them since. Can you tell me why they left?

J. J. B.

Olympia, Wash.

ANSWER.—I don't remember that I ever heard of such a case, and am at a loss to know the cause. If any one has the right explanation I'm ready to yield the floor. Some faint guesses suggest themselves, but I think it's safer to say “I don't know.”

#### What to Do With Unfinished Sections.

As I will have several hundred unfinished sections varying from starters *not started* to half full of (dry) comb, all nice and white, will it pay me to keep them for another season? If so, give the best way to keep them. Or would it be better to cut out the comb and sell the wax, and get new sections and foundation next year?

J. B. G.

ANSWER.—If they're nice and white, I'd use them this year all I could, and keep the rest for next year. There's no trick in keeping them. Keep them in a dry place. Moths are not likely to trouble them as they do old brood-combs, and if you do not care to keep them in some moth-proof box or closet, just take a look at them now and then, and if you find the worms have made any start in them, brimstone them.

#### Feeding a New Swarm.

A swarm issues and is hived. The next day a cold rain sets in. How long would it be safe to let it remain without feeding?

F. T. B.

ANSWER.—I don't know. Some swarms carry more honey with them than others. It might be safe to let them remain three, four or more days, but I'm sure it would be safe to feed them within 24 hours.

#### Wants Information About Carniolan Bees.

Please give a short description of the Carniolan bees. I would like to know whether my bees are pure stock, or hybrid; and also whether the Carniolan is a distinct race, or if it is a branch of the Italian or black. Are Carniolans as easy to handle as Italians?

TORONTO.

ANSWER.—I don't know enough to give a description of Carniolans by which you can decide whether your bees are pure or not, for I have heard breeders of Carniolans themselves say they could not tell them for sure by their looks. Neither will I risk getting a hornets' nest about my ears by trying to decide which is the original race of bees.

As to whether Carniolans are easy to handle, that's a hard question, too. In the first place, they had the reputation of being the gentlest of all bees to handle, but later some report them as vicious. It is possible that impurity may have something to do with the case, for certainly there has been much testimony as to their gentleness.

Will the editor please ask Rev. E. T. Abbott to give the desired description?

[As Mr. Abbott said on page 302, “I think it is just as easy to tell a Carniolan bee from a black as it is to tell a horse from a mule,” no doubt he will furnish the “description” asked for, and in a satisfactory way. He has the invitation and opportunity, at least.—EDITOR.]

# The American Bee Journal

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## Editorial Budget.

### Sweet Month of Roses—June.

Then let us, one and all, be contented with our lot;  
The June is here this morning, and the sun is shinin' hot.  
Oh! let us fill our hearts up with the glory of the day,  
And banish ev'ry doubt and care and sorrow far away!  
Whatever be our station, with Providence fer guide,  
Such fine circumstances ort to make us satisfied;  
Fer the world is full of roses, and the roses full of dew,  
And the dew is full of heavenly love that drips fer me and you.

—James Whitcomb Riley.

**A New Smoker**, Zaebringer's, is described in German bee-journals. It's nothing more nor less than an atomizer, or sprayer, with a big rubber ball. But it's well spoken of. So says a "straw" in Gleanings.

**A Recent Act** of the Michigan legislature makes it an offense punishable by a fine of \$50, or 90 days in jail, for maintaining a hive of bees on your premises, in that State, within 90 feet of the highway. So says the Michigan Farmer, published in Detroit.

**Carriage Decorated with Honey-Sage.**—A California correspondent reports that among the variously decorated carriages and other vehicles in the floral carnival in Santa Barbara, in April, was one covered with honey-sage of the southern portion of the State. The long, slender stalks of the plant, with the leaves and flowers, made a very pretty and novel sight. It did not look so gorgeous as many of the rigs covered with gay-colored roses, geraniums, carnations, and the like, but (as did one of the rigs that was decorated with California wild mustard) it made one of the striking features of the show. It was not learned whether the rig was that of a bee-keeper, but it was supposed it was not, as it was a better one than most bee-keepers are able to sport. At least, that was the "impression" of the correspondent.

**A Cure for Bee-Paralysis.**—There have been given out so many so-called "cures" for bee-paralysis, that I almost hesitate to publish another. But the one I received on May 28 comes from such a well-known and extensive firm of bee-keepers that I feel warranted in giving it a conspicuous place in these columns. It is from Messrs. Alderman & Roberts, of Wewahitchka, Fla., who have had within the past two or three years, 1,300 colonies of bees in their apiaries. Hence they doubtless have given their proposed cure for bee-

paralysis a thorough trial, and know whereof they affirm. I trust others, who may be so unfortunate as to have the disease in their apiaries, will follow the directions carefully, and then report results.

The letter giving the ingredients of the remedy and its application, reads thus:

WEWAHITCHKA, Fla., May 22, 1895.

EDITOR AMERICAN BEE JOURNAL—Dear Sir:—We have many times in the last 20 years been benefited by recipes from our brother bee-keepers, so we want to reciprocate. Below is a remedy for the bee-paralysis. It has been troubling our bees now for three years. This cures it:

Take one quart of warm water, dissolve in it two teaspoonfuls of salt and two teaspoonfuls of cooking soda. Add a tablespoonful of cider-vinegar. To this add a quart of honey, or syrup (heavy) made of sugar. Agitate it thoroughly with a spray pump, and spray the entire colony.

When the disease is very stubborn, add two drops of carbolic acid to the above.

We will have about one-third of a crop of honey this year.

Yours truly,

ALDERMAN & ROBERTS.

### You Don't Take the Bee Journal? It must

be because you've never thought what a help it would be to you in your work with the bees. For only a short time we are offering the American Bee Journal for 10 weeks for 10 cents to any one not now a subscriber. Better send on your dime (in stamps or silver) at once, and take advantage of this liberal offer. Then later on we should be glad to have you subscribe for a year, and also get the 160-page book—"Bees and Honey"—free as a premium. Every new subscriber who sends us \$1.00 for a year's subscription is entitled to this book free. But you can take the 10-cent trial trip first, if you prefer.

**Sweet Clover** (Mellilotus), Prof. S. M. Tracy, Director of the Mississippi Experiment Station, says is "one of the very few plants which are able to draw their supply of nitrogen from the air; and hence by and through its biennial decay it furnishes the most valuable and most expensive factor in commercial fertilizers free of cost, and the best form."

### Mr. E. T. Flanagan and His Apiary.

The engraving shown on the first page this week represents the apiary of Mr. E. T. Flanagan, at Belleville, Ill. The picture was taken March 30, 1895, and appeared in the Progressive Bee-Keeper for May, in connection with the following sketch, written by Mr. Douglas D. Hammond, of Malone, Iowa:

In the foreground you will see Mr. Flanagan and five of his bright-eyed little ones. The party holding the smoker is Mr. F.'s assistant from Iowa, and, I am sorry to say, for unfavorable reasons, Mrs. Flanagan and the youngest Mr. Flanagan were not taken.

Mr. Flanagan was born in Belleville, Ills., Feb. 19, 1837, and married Miss Lily R. Mithoff, of New Orleans, La., Oct. 1, 1884, and has six children, three girls (as shown in the picture), and three boys, two of which you can see. The one in his arms he calls his bee-boy, and he is as fearless of the bees as most people are of so many flies.

Mr. Flanagan began his career as a bee-keeper with two colonies in box-hives in 1878, and a short time passed before he had a serious attack of the bee-fever, for when he procured the two box-hives he little dreamed of anything beyond a little honey for his own use. But a short time elapsed, however, before, in partnership with Dr. Illinski, of Cahokia, Ill., he had 1,000 colonies in Simplicity hives, and in connection with his having one of the largest apiaries in the United States, he has probably had more experience in migratory bee-keeping than any man up to date; all of which he has carried on successfully, with the exception of unavoidable circumstances, such as the loss of 300 colonies at New Madrid, Mo., caused by a steamboat taking fire.

He works principally for extracted honey, as his location has only fall flowers for surplus honey. But his main occupation is rearing bees and queens, he having sold as many as



\$6,000 worth of bees in one year. He has sold several car-loads at a time. He runs four out-apiaries at a distance of 9 to 15 miles from the home apiary, and owing to his large experience in migratory bee-keeping and out-apiary work, he long ago, or, in other words, was among the first to discard the Simplicity hive. He now favors for his own use a 10-frame dovetailed hive, and an 8-frame for selling; and, like many more of our best bee-keepers, prefers a leather-colored Italian, or first-cross hybrid. He generally keeps from 300 to 500 colonies, and has tried all the races of bees except Punics. He once gave as high as \$35 for a Cyprian colony and queen. He has imported bees for years, but believes we now have as good bees as in Italy.

Mr. Flanagan's father died while he was young, and owing to a defect in his father's title to property, all was lost. This left him without any education or money to care for himself, and it is in justice to him to say he did not get one year in school, all told; and yet his well-written articles have been read by thousands of wide-awake bee-keepers, and valued, too. It is plain to see their value: First, his large experience; second, he is a man of truth, and not theory, for all he writes is that which he has tested.

He is a lover of flowers, poetry, and all classes of good literature. He has a happy family and home, well cared for, is always bright and cheerful, and is exceedingly generous, well posted in the Bible, and a follower of the Word. I only regret that space is so limited. He traveled over Texas in an early day, and many are the stories he has told me, on our trips from apiary to apiary, of deer and wild turkey hunting.

In referring to the picture again, let me say when these fruit-trees were in bloom it was one of the grandest sights I have ever seen. His place is well stocked with the choicest of fruit of all kinds, among which are pears he originated himself.

And now, good friends, if you want to find a kind mother, a loving father, a happy home and little ones, call where you will get a hearty welcome, at the home of E. T. Flanagan.

Mr. Leahy, editor of the Progressive Bee-Keeper, who kindly loaned the engraving on the first page, adds this paragraph to Mr. Hammond's story of Mr. Flanagan's life:

The above is such a good description of my friend and brother bee-keeper—of his home life, his originality, of his fearlessness in large undertakings, his morality and generosity—that I cannot add anything along that line but to say I know it to be true. I remember too well the helping hand, the encouragement that Mr. Flanagan gave to me years ago when I went to him to find out something about the mysteries of bee-keeping. The first bee-book I ever read was generously loaned to me by him. From this book, and from his kindly advice to me at the beginning, I trace my first steps to my present success, if success it may be called. Mr. Flanagan and I have "talked bees" in that grove when those trees were small, but the trees have now grown into a beautiful grove—they mark the glorious enterprise of the man who planted them there. They bloom and give fragrance to the air, and the bees hum among their branches. Mr. Flanagan and I have grown older, but with each year I know our friendship has grown stronger. May he live long to enjoy the fruits of his labor, is the wish of his friend—

R. B. LEAHY.

## Southern Department.

CONDUCTED BY

DR. J. P. H. BROWN, AUGUSTA, GA.

[Please send all questions relating to bee-keeping in the South direct to Dr. Brown, and he will answer in this department.—Ed.]

### No. 2.—Bee-Management, Etc.

A good smoker is indispensable to every bee-keeper. See that it is in good order. When the fuel in it is well ignited, approach the hive and blow a few whiffs of smoke in at the entrance. Wait a minute, then blow a little more smoke until the bees set up a sort of roaring noise. Then gently commence to open the hive, and if the bees show a desire to come up, blow a little more smoke over the tops of the frames, which will run the bees back. Bees can be smoked too much, particularly when queens are to be found. Just how much to give depends upon the humor and disposition of the insects; as a general rule, hybrids, Syrians, and Cyprians require more smoke to subdue them than blacks, Carniolans, and Italians. Italians are the most easily handled.

When using smoke, care should be taken not to run the bees off the combs. Blacks and the far Eastern varieties are easily run off to the sides of the hive, or will collect in a pendulous mass on the edge of a frame that is being handled, and will possibly lose their hold and drop at your feet, which is not very pleasant to the operator. Cyprians can stand a "broad side" of smoke unflinchingly, and will only yield after continued blasts.

When a bee gets under the clothes, give it room and do not crowd it, and it will make for the light and crawl out without offering to sting.

#### VARIETIES OF THE HONEY-BEE.

There are quite a number of varieties of *Apis mellifica*, among which I may name the black bee, which is the most common. This variety was introduced, it is said, into Pennsylvania from Germany about the year 1627, and was transported to South America in 1845. The Italian, Cyprian, Syrian, Egyptian, Carniolan, etc., are also only varieties, and are undoubtedly of common origin. For beauty, honey-gathering capacity, docility, and most desirable qualities, the Italian is to be preferred.

In cultivating any of these breeds of bees, there is a continual, though slight, disposition to sport from a precise standard of physical and psychical characteristics to an assumption of some of the peculiarities of some other breed. This seems to be a rule attending the breeding of all cattle, horses, sheep, swine and fancy breeds of poultry, that lack that fixedness and individuality of character sufficient to stamp such breed as a distinct species.

### How Long Will Foundation Keep?

How long will foundation keep good before using? I mean, when left over from year to year.

N. G. O., South Carolina.

ANSWER.—If the wax-moth is kept from it so that no eggs are deposited, it will remain good for a number of years. Wax hardens with age, but it will soon soften if exposed to a gentle heat. When foundation is left over until another season, you can make it just as good as new-made, by simply exposing the sheets to the heat of the sun for a few minutes.

### Linden or Basswood—Northern Georgia—Transferring.

1. "We have a tree here called linn, and a good tree for honey. Is it what is called the basswood or linden?"

2. What sort of a place is northern Georgia for a bee-country?

3. Would you transfer from the old hewn-out log-hive to movable-frame hive?

J. J. W., Kentucky.

ANSWERS.—1. Yes, sir.

2. There are portions of it that are very good. All the cereals, grasses, and fruits that are cultivated in higher latitudes grow well there. But never think about moving to a new place before you first go to see it.

3. I certainly would. I would allow a prime swarm to issue from the old log-gum, which I would hive in a frame hive; and then in 21 days I would demolish the old log—cut out the combs, and use all the straight worker-combs in the new hive, and transfer the bees to the same.

### Bees in Northwest Georgia—Treatment of Swarms—Piping—Fastening Foundation in Sections.

We have a good prospect for honey in the near future. Bees have been storing a little surplus, but there is a little check-up at present. I took off a box the other day—weighed 27½ pounds, and left another case which was under it about half full. I put into winter quarters 68 colonies, and they came out all right.

Swarming has been the order of the day. For the last four weeks we have had 41 swarms, but we hived all second-swarms back.

1. Which do you think is the best plan—to put the new swarm in a new place, or to set it on the old stand and move the old colony to a new place? Here is the way I have been treating second swarms: Hive them, and set them close beside the old hive for two days, and then take the frames out

and shake the bees in front of the old hive, and the work is done.

2. How does the queen make the noise in piping—with her wings or mouth? Give me the Italians, for they are the hustlers?

3. What is the best way to fasten foundation in sections? Hurrah for the "Southern Department" of the American Bee Journal!

S. B. PETTYJOHN.

Trion Factory, Ga., May 19.

ANSWERS.—1. If you are working the colony for comb honey at the time of swarming, there will be less interruption in the working-force in the surplus department if you place the new swarm on the old stand.

2. Piping is done with the wings.

3. The quickest and best way to fasten the foundation in the sections is to use a machine called a "foundation fastener." You can also do it by dipping the edge of starters in a pan of melted wax. This way is sure.

### How and When to Transfer Bees.

I want to transfer from box-hives into movable-frame hives. What is the best way and when the best time to do it? What do you think of the idea of putting the box-hive on top of the new hive (the box-hive has a bottom) and remove the top of the new hive, letting the box-hive rest on the frames or edges of the new hive, and stop all escape except through the new hive and out the regular opening in the new hive; and leave them thus for several days, before driving out of the old hive? Do you not think they will drive easier, as they by this time will consider this new hive part of their home?

E. R. L.

ANSWER.—If you want to simply "drive" your bees into new hives, the plan you suggest will make it easier for you; but if you want to transfer bees and combs from your box-hives into the movable-frame hives, then it would hardly be worth the trouble to use your arrangement.

An expert can transfer bees at any time of the year, only so the bees can fly; but beginners should always be on the safe side, and only transfer at times when the bees are gathering honey. Spring is the best time. The earlier the better. As the swarming season is now pretty well over with you, I would defer the work until next February, and perform the operation as described in the bee-books. But don't use twine strings or tape for holding the comb in the frames. Such stuff is not fit. Use transfer-clamps, or sticks, to hold the combs in the frames. The combs thus held will be perfectly secure, and kept straight until fastened by the bees.

When bees are gathering no honey, and there is danger of robbing, make your transfers in a close room. When the colony is deficient in stores, you must feed.

**Ten Weeks for Ten Cents.**—This is a "trial trip" offer to those who are not now subscribers to the American Bee Journal. Undoubtedly there are thousands who would take this journal regularly if they only had a "good taste" of it, so as to know what a help it would be to them in their work with bees. In order that such bee-keepers may be able to get that "taste," the very low offer of "10 weeks for 10 cents" is made.

Now, dear reader, you cannot do a better service than to show this offer to your neighbor bee-keeping friends, and urge them to send on their 10 cents and get the next 10 numbers of the old American Bee Journal. In fact, you could afford to send the 10 cents for them, and then after the 10 weeks expire, get them as new subscribers for a year. They will be easy to secure then, for the 10 numbers will be a fair trial, and they will want the Bee Journal regularly if they are at all interested in bee-keeping.

Remember, it's only 10 cents for 10 weeks, to all not now subscribers to the Bee Journal.

**Only One Cent a Copy** for copies of the American Bee Journal before Jan. 1, 1895. We have them running back for about 10 years. But you must let us select them, as we cannot furnish them in regular order, and probably not any particular copies. Just send us as many one-cent stamps as you may want old copies, and we will mail them to you.

**A Big Offer.**—Send two new subscribers to the American Bee Journal for one year, at \$1.00 each, and get as your premium a free copy of Root's "ABC of Bee-Culture" bound



in cloth. This offer will hold good only so long as the present stock of books holds out; so you'd better send your order within a couple of weeks. It's a big offer, and you ought not to miss it. It is a 400-page encyclopedia of bee-keeping, fully illustrated. Over 60,000 copies have already been sold. The regular price, postpaid, is \$1.25; or we will club it with the American Bee Journal for a year—both for only \$1.80.

**Honey as Food and Medicine.**—A new and revised edition of this 32-page pamphlet is now issued. It has 5 blank pages on which to write or paste recipes taken from other sources. It is just what its name indicates, and should be liberally distributed among the people everywhere to create a demand for honey. It contains a number of recipes on the use of honey as food and as medicine, besides much other interesting and valuable information. Prices, postpaid, are: Single copy, 5 cts.; 10 copies 35 cts.; 50 for \$1.50; 100 for \$2.50. Better give them a trial. Send all orders to the Bee Journal office.

**Queens and Queen-Rearing.**—If you want to know how to have queens fertilized in upper stories while the old queen is still laying below; how you may easily introduce any queen, at any time of the year when bees can fly; all about the different races of bees; all about shipping queens, queen-cages, candy for queen-queens, etc.; all about forming nuclei, multiplying or uniting bees, or weak colonies, etc.; or, in fact, everything about the queen-business which you may want to know—send for Doolittle's "Scientific Queen-Rearing"—a book of over 170 pages, which is as interesting as a story. Here are some good offers of this book:

Bound in cloth, postpaid, \$1.00; or clubbed with the Bee Journal, for one year—both for only \$1.65; or given free as a premium for sending us three new subscribers to the Bee Journal for a year at \$1.00 each.

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### BEES and QUEENS

are from the best strains, and reared and shipped in the way that long years of experience have shown to be the best.

He has the largest Stock of

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in New England; and as to Prices, you have only to send for a Catalog and compare them with those of other dealers.

To those living in the East, there is the still further consideration of low freight rates Address.

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Are bred for Business, Beauty & Gentleness. He makes a Specialty of breeding Fine Italian Queens that rank with the best in the world. Untested Queens, in May, \$1.25 each; June \$1 each, or 6 for \$5.00; July to October, 75c. each or 6 for \$4.25. Tested Queens, \$1.50 each. Send for Free Illustrated Circular to—

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Perfectly adapted to Modern Bee Culture.

Illustrated Circular Free.

**HAYCK BROS., QUINCY, ILL.**

19A8 Please mention the Bee Journal.

GARDEN CITY, Kan., May 13, 1895.

P. J. THOMAS, Fredonia, Kan.—

Honor to whom honor is due. The Queen you sent me proved the best out of six I bought from different Breeders.

J. HUFFMAN.

## Big Yellow Golden Italian Queens 75c

Three for \$2.00. Three-banded, same price. 1-Frame Nucleus, with Untested Queen, \$1.75 2-frame, \$2.25. Satisfaction guaranteed.

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We c. All your orders for Dovetailed Hives, Sections, Foundation, etc., by RETURN MAIL. Have A. I. Root Co.'s goods at their prices. Will save you freight, and get goods to you in a few days.

Catalogue Free. JOHN REBEL & SONS, High Hill, Mo.

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## AMONG THE BEE-PAPERS.

### POINTS IN JUDGING BEES.

Here are nine points given by S. E. Miller, in Gleanings, in the order of their importance:

1. Prolificness of the queen.
2. Honey-gathering qualities of the workers.
3. Hardiness in wintering.
4. Disposition of workers—gentleness, etc.
5. Non-swarmling.
6. Comb-building.
7. Longevity of queen and workers.
8. Size of workers.
9. Color.

Many would put non-swarmling higher in the list, but Mr. Miller says: "So long as swarming comes with prosperity and seasons of large crops of honey, and non-swarmling is accompanied by failures, I should consider swarming the lesser of two evils, if swarming may be considered an evil." In which conclusion all might concur if they should concur in the data.

C. Davenport would not agree in placing prolificness of the queen at the head of the list, for four pages farther on in the same number he says:

"Last season (a poor one in this locality) I had in the home yard a high-priced queen that I had bought the previous summer. She was in a 10-frame hive, and she needed 10 frames, for she was very prolific. This colony did not swarm. They partly filled one super. There were perhaps 15 sections completed. An 8-frame hive stood right beside this one, the queen of which was a hybrid. I do not believe she laid an egg in either of the outside combs during the entire season; yet this colony filled 96 sections, and had plenty of stores for winter; and it is to-day one of the strongest colonies I have. Another colony, in an 8-frame hive, whose queen, a pure Italian, was also bought the previous summer, filled five supers of 24 sections each. There were a few in the last super that were not completed. They also had to be fed a little in the fall; but they are in good condition at this writing. This queen is hardly equal to 8 frames; but I regard her as one of the most valuable ones that I ever owned.

### NUMBER OF FRAMES.

"Enthusiastic," in Review, says he spent years in experimenting with all sizes from five to nine frames, and is fully persuaded that for his location and management nine frames are best. Now some one will ask him why he doesn't experiment with ten or more frames.

### SINGLE STORIES VS. DIVISIBLE BROOD-CHAMBERS.

Says Ernest Root in Gleanings: "How the divisible brood-chamber can be handled any more rapidly than a good hive containing modern Hoffman frames with V edges, is past my comprehension. I have handled the former somewhat in our own apiary. That is to say, we have had a Heddon hive in our yard for a number of seasons; and I have manipulated that hive perhaps more than any other one hive in our yard. We have also had a Danzenbaker hive in our yard for a part of one season. I have seen divisible-brood-chamber hives handled

## SPECIAL OFFER.

For July and August only. To those who have never tried our strain of Honey-Gathering Italians, we will make this Special Offer for July and August only, to introduce our Bees in your locality: We will send one Warranted Queen in July and Aug. for the trifling sum of 50 cts. **Remember**, the Queens we are going to send out for 50 cts. are warranted to be purely-mated, and if not, send us a statement of the fact and we will send another free of charge. Only one Queen will be sent at the above price to one address. If you want any more you must pay full price as per Table of Queens in our Circular, which we mail with each Queen. Address all orders to—

**Leininger Bros., Fort Jennings, Ohio.**

22A5 Mention the American Bee Journal.

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Had you noticed that we have a bee-journal in the South? Well, we have. Send us \$1.00 and receive "THE SOUTHLAND QUEEN" one year. Fresh, Practical and Plain. Jennie Atchley begins a Bee-Keepers' School in it June 15.

A Steam Bee-Hive Factory. Send for Free Catalogue and Sample Copy of "The Southland Queen."

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22Atf BEEVILLE, Bee Co., TEX.

**GOLDEN QUEENS** Solid Yellow, \$1; Yellow to tip, 75c.; darker 60c. Tested, \$1 to \$2. Breeders, \$3. Best, \$5. Samples of Bees, 2c. None better for Honey, Beauty and Gentleness. Ready now. Fully guaranteed. F. C. MORROW, Wallaceburg, Ark.

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We have finally succeeded in finding a Paste that will stick labels to tin, glass, etc.—just thing bee-keepers have wanted. It will do the business wherever any "stickum" is required. It is guaranteed to do the work. It is put up ready for immediate use, in the following size packages, and at the prices given, by express: 1/4-gal., 70c.; 1 gal., \$1.00; 2, 3, 4 or 5 gals., 75c. per gal. It weighs about 8 lbs. to the gallon. Sample of Paste, postpaid, 25c. Address all orders to—

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Honey - Jars, Shipping - Cases, and everything that bee-keepers use. **Root's Goods at Root's Prices**, and the best shipping point in the country. Dealer in Honey and Beeswax. Catalogue Free.

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Price-List For Sale.

21A17 Mention the American Bee Journal.

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22A5 CREEK, Warren Co., N. C.

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Highest Awards  
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Broad or narrow  
tires, high or  
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fit any skein.

Are climate-  
proof, weigh  
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14A13t Please mention the Bee Journal.

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**Control Your Swarms, Requeen, Etc.**

Send 25c. for samples of West's Patent Spiral Wire Queen-Cell Protectors, and Patent Spiral Queen Hatching and Introducing Cage; & best Bee-Escape, with circular explaining. 12 Cell-protectors, 60c.; 100, \$3. 12 cages, \$1; 100, \$5, by mail. Circular free. Address, **N. D. WEST, Middleburgh, Schoharie Co., N. Y.** Sold also by all leading supply-dealers. 22A5

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One Untested Queen before June 1st....	\$1.00
Six " " " " " " " " " " " " " "	5.00
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22A5t

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Has No Sag in Brood-Frames

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Has No Fishbone in the Surplus Honey.

Being the cleanest is usually worked the quickest of any Foundation made

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Sole Manufacturers,  
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I have some 35 good Bee-Hives to sell, with all the Frames and Honey-Boxes—some 10 are Heddon Hives, and 6 double 10-frame, balance 8-frame, with stuff for honey-boxes. Smokers, and some Foundation, Bee-Veils, and all the Fixtures for bee-keeping which I will sell for \$2.00 per hive, and throw in all the fixtures. Big bargain here. Correspondence solicited.  
**SAMUEL CLARK, M. D.,**  
22A2t **LAWRENCE, McHenry Co., ILL.**

by beekeepers who were very enthusiastic over them; but, taking it all in all, I think I can get a more satisfactory knowledge with a given number of hives containing full-depth Hoffman frames in less time than from any equal number of horizontally divided brood-chamber hives I have ever seen or read of.

Now, why do I like mine (or, more correctly, Hoffman's) better? A Hoffman-frame hive can be split *perpendicularly* in two parts. A divisible-brood-chamber can be split horizontally in two parts; but it will be apparent that such a split does not show brood surface—only the edges of the combs, and those very imperfectly. A *perpendicular* split does show the *whole surface* of two combs. Then if we remove one comb we have for examination the two surfaces of the one comb, besides two surfaces of each of two other combs."

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Complaint having been made that Shea & Co. quoted honey too high, they write to Review: "There are always two prices. Say, for instance, we quote honey in the country at 16 to 17 cents, while the same goods sell in the city to the jobbing trade at 15 cents. Do you want the lowest quotations, or what the stuff is actually sold for?" To this the editor replies: "The figures the beekeepers want given in quotations are those that they may expect to realize for honey if sent to the market from whence come the quotations. Exceptional prices are not wanted. . . . Each dealer should give the average price at which he is selling each grade of honey."

**PLANTING THE LINDEN OR BASSWOOD.**

It would take a good many years for basswood or linden trees to yield honey—perhaps 20. We set out a basswood orchard something over 20 years ago, and it is not yielding honey very satisfactorily even yet."—E. R. Root, in Gleanings.

**WHICH HAS THE GREATER INFLUENCE, THE QUEEN OR THE BEES, IN DETERMINING THE AMOUNT OF BROOD?**

F. L. Thompson raises the above question in Review, and says: "Two years ago in April I dug out and transferred a wild swarm from an abandoned skunk-hole. The capacity of the hole, which was completely filled with comb, probably exceeded 16 Langstroth frames. They then had an amount of brood equal to 6 solid Langstroth frames, and the colony had to be divided, because it was simply impossible to get the bees in one 8-frame Langstroth hive, or anywhere near it. This was very nearly the time of year when our colonies are weakest. Exceptional? Yes, but afterward that same queen would have been taken for a very ordinary queen indeed, judging from the amount of her brood. I always think of her behavior in and out of the skunk-hole, when reading arguments for the 8-frame size."

The editor thinks that at least sometimes the queen is the more important factor, saying: "I have seen many colonies come out of winter quarters quite populous, yet they would rear only a small amount of brood and be entirely outstripped by other colonies that were quite weak in numbers in early spring."

See "A B C" offer on page 366.

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	1 lb.	5 lbs.	10 lbs.	25 lbs.
Heavy or Medium Brood	42c.	40c.	30c.	38c.
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I will send a Guaranteed 5-Banded Yellow Queen, bred from a Breeder selected from 1000 Queens (some producing over 400 lbs. of honey to the colony); or a 3-Banded Italian Leather-Colored Queen direct from a Breeder imported from Italy. Oct. '94—at 75c., and a special low price for a quantity.

My secret is to sell an extra-large amount, which enables me to sell at low prices. Will run this spring 350 Nuclei—have 1 home and 4 out apiaries. **Hooking Orders Now**—will begin shipping about May 1st. No Queens superior to my Strain.

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Quality always the best. Price always lowest.

**Working Wax into Foundation** by the lb. a Specialty. I can make it an object for you in any quantity, but offer special inducements on straight 25 or 50 lb. lots. Or for making large lot of Wax into Foundation. I am furnishing large Dealers, and can also please you. **Beeswax taken at all times.** Write for Samples and Prices, to

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Reference—Augusta Bank. 16A1f

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Five cross-bars are riveted in the centre at the top. These bend down and button to studs on a neck-band. The bars are best light spring steel. The neck-band is hard spring brass. The netting is white with face-piece of black to see through.

It is easily put together and folds compactly in a case, 1x6x7 inches, the whole weighing but 5 ounces. It can be worn over an ordinary hat; fits any head; does not obstruct the vision, and can be worn in bed without discomfort. It is a boon to any one whom flies bother, mosquitos bite, or bees sting.

This Veil we club with the Bee Journal for one year—both for \$1.75; or give free as a Premium for sending us 3 New Subscribers to the Bee Journal at \$1.00 each.

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**IMPORTED** Italian Queens reared this yr. \$3.50 each. Tested Queens—Breeders—\$1.50 to \$2.00 each.

21A **W. C. Frazier, Atlantic, Iowa.**  
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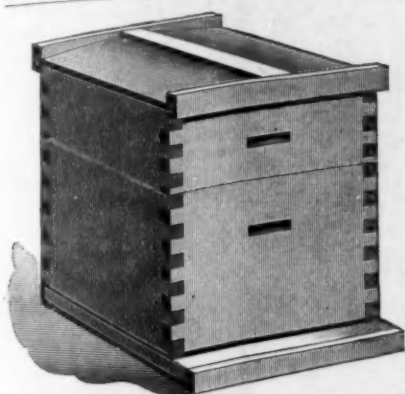
**Wants or Exchanges.**

This department is only for your "Wants" or bona-fide "Exchanges," and such will be inserted here at 10 cents a line for each time, when specially ordered into this department. Exchanges for cash or for price-lists, or notices offering articles for sale, will not be inserted here—such belong in the regular advertising columns, at regular rates.

**TO EXCHANGE**—Buzz-Saw, Shipping-Cases, Lang. Section-Frames with tin separators, for Queens, Honey, or own offer.  
22A4t **G. M. DEER, Riga, Mich.**

**WANTED**—I have some fine Mastiff and Collie Shepherd Pups to exchange for offers. Write me. **SCOTT BRILLHART,**  
23A1 Millwood, Knox Co., Ohio.





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Having made arrangements with the inventor to manufacture the "Higginsville Hive-Cover," I will place it on all hives sent out this year, unless otherwise ordered.

Write at once for large illustrated Catalogue for 1895, giving full description and prices of Higginsville Hive-Covers, Dove-tailed Hives, Sections, Frames, Supers, Foundation, Crates, Boxes, Smokers, Extractors, etc.

Write for prices on large quantities.

E. L. Kincaid, Walker, Vernon Co., Mo.

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Beginners should have a copy of the Amateur Bee-Keeper, a 70-page book by Prof. J. W. Rouse. Price 25 cents; if sent by mail, 28c. The little book and the Progressive Bee-Keeper (a live, progressive 28-page monthly journal) one year, 65c. Address any first-class dealer, or

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## BIG DROPS

of water has made the vegetation. Now the sun shines—the Honey wells up—the Bees gather it, and every Bee-Keeper should have all needed **Supplies at once.** Catalogue Free.

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In Order to Reduce Our Stock, We Offer

No. 1 CREAM SECTIONS — 4¼x4¼x7-10-ft.;  
1½, 1¾, 1 15-16 and 2 inch;  
1000 for \$1.50. 5000 at \$1.40 per M.  
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## WILLIAMS' Automatic Reversible Honey-Extractor.



Perfect in Principle and Workings. Here is what the veteran bee-keeper, N. E. France, of Platteville, Wis., says of it: "I consider the Williams Automatic Reversible Extractor head and shoulders above any I have ever used; and furthermore, consider it the BEST on the market."

## 100 Italian Queens.

Reared in 1894. We make the readers of the Bee Journal a **Special Offer**, in order to have them move off quickly: for the next 30 days we will sell these Queens as follows:

One Queen reared in 1894.....	\$ .75
6 Queens " " " " " " " " " "	4.00
12 " " " " " " " " " "	7.00

These Queens were reared from fine stock and are right in their prime; they are a great bargain

For Price-List No. 2, of Extractors, Bees and Queens—address,

Van Allen & Williams, Barnum, Wis.

P. S.—We have in one of our bee-yards, a few Mismatched Queens—to those that want them, 25c. for one, 5 for \$1. Stamps taken for single Queen.

Send Express Money Order payable at Barnum, or P. O. Money Order payable at Boscobel, Wis.

## General Items.

### Bees Swarmed Nicely.

We have had a very good time for bees in north Texas this spring. Bees wintered well, and have been swarming nicely. I have 68 colonies in Simplicity hives, all of which are in good condition.

P. F. GASSAWAY.

Floyd, Tex., May 2.

### Outlook is Promising.

We have had frost every night for the past week. Early blossoms are badly damaged, and clover badly cut down. In the midst of it all we are ever hopeful bee-keepers. Bees seem to be in good condition. There has been some loss through balling of queens. Drones have been flying. On the whole, the outlook is promising where bees were well provided with winter stores.

JOHN MCARTHUR.

Toronto, Ont., May 18.

### Hot Weather in California.

We have just gotten over some of the very hottest weather we have had at this time of the year; it was hotter than I ever felt it in June, when we get some of our first hot weather of the year. It is now cool and nice; the indications now are that it may rain in a few days. As a contrast to our weather I notice by to-day's papers that the Eastern denizens are having a big freeze—vegetables and such things have gone by the board. I am sorry for the sufferers; but they should be in this State if they want comfort. I trust that it will not cripple the honey-business, too.

W. A. PRYAL.

North Temescal, Calif., May 14.

### Using Old Hives—Removing Propolis.

A correspondent complains that he has been unable to induce swarms to accept old hives, and contentedly make them their home. I think if he will place, one, two, or three frames of brood (in all stages of development, but specially that which is unsealed) in a tolerably clean hive, he will have little or no trouble in keeping his bees. Every animal is inclined to remain with its young, and bees are no exception to this rule, particularly when the unsealed brood needs feeding and nursing.

I have found it a very convenient method, to remove propolis from the hands, to smear the propolis, rubbing it thoroughly with lard, any soft grease, machine oil, or any of the fatty oils, and then wash it all off with soap and water. F. O. BLAIR.

Trinidad, Colo.

### Bee-Keeping in West Virginia.

I put 28 colonies (all blacks) into winter quarters about Nov. 10, 1894, but two of them were queenless, and of course came out this spring queenless, so I united them with two others.

I wintered them as follows: I put part of my bees into an up-ground cellar, made thus: Planked up and down with inch lumber, tongued and grooved, ceiled inside with inch lumber, filling a 10-inch space between with sawdust. The balance of the bees I left on the summer stands, and put on winter-cases 4 inches larger all around than the hive, and filled the space between with dry forest leaves. All 28 came through the winter, but those wintered in the cellar, or house, seemed to be in the best condition.

My bees, during the last few days of April and May until the 12th, seemed to build up the fastest and gathered the most honey I ever saw in this country for this season of the year. But now, as I am writing, the bees are perfectly dormant, and remained in the hive all day yesterday on account of a cold wave, and it snowed

quite a flurry this morning. This cold wave will be hard on the bees.

We had a wonderful apple-bloom, but we fear this cold wave will blast our hopes, as we were expecting a fine crop of apples after the bees had gotten a good supply of nectar from the bloom.

I am much delighted with the weekly visitor—the American Bee Journal. I feel that I could not make a success with my little apiary without it. If I get "tangled" a little during the week, I just wait until Saturday afternoon, when the Bee Journal steps in, and I at once consult it, and I soon find something that lets me out.

IRA SHOOKEY.

Long, W. Va., May 18.

#### Hard Winter for Bees.

Last fall I had about 28 colonies of bees. It was a hard winter for bees, and now I have just about 15 left from 28.

FRED EISEMANN.

Chelsea, Mich., May 24.

#### Prospects Not Good.

Bees are very strong—I had several swarms, and they stored considerable honey the first week in May, but they are doing but little now, with no prospect for a good honey crop. Horsemint, our main dependence, is a total failure this season, as well as last.

J. D. GIVENS.

Lisbon, Tex., May 20.

#### First Swarm—Overstocked.

To-day my first swarm of bees came out—the earliest I have had for years. My only desire is for a No. 1 field of bee-pasture. My poor bees will be badly disappointed, though, with about 1,500 colonies in a circle of 4 to 5 miles in diameter. How can these poor, winged things get enough to satisfy both them and me?

S. M. CARLEN.

Montclair, Colo., May 22.

#### Bees in Montana.

Some one has called for a report from Montana. I don't live there, but I can tell him what I know about that place in regard to bee-culture. I shipped a colony of bees to a Mr. Brockway, at Billings, Mont., last season. They arrived in good condition, and swarmed three times, and stored about 100 pounds of surplus honey. Mr. B. wrote me a few weeks ago, saying that his bees had wintered well. Without doubt bees would do well there, if handled rightly.

Onsted, Mich.

L. E. EVANS.

#### Cold Weather—Wintering.

The cold freeze last night beat all the freezes I ever looked on in a May day, for east Michigan fruit of almost all kinds is cut. Alsike clover is drooped. My bees have been shut in for four days—some of them have made the stores disappear as if by magic.

I commenced last winter with 11 colonies, all strong and well cared for, with chaff hives and cushions, but in February malaria fever got the best of me, and kept me housed for about eight weeks, and I could not attend to them.

In March we had a soft snow from the East; it was a heavy, driving storm, and it drove into half of my hives and smothered two of the heaviest colonies I had. The rest of them were left in poor condition. The other colonies facing south are in the best of condition. Three years of experience tells me that the east is not best to face hives. If I had been able to get out at the time it would not have happened.

The most of the bees in this locality suffered last winter—about one-third or more are dead; and the reason is, as near as I can find out, they were left in a haphazard condition for winter. I have looked at some colonies that died, and there were lots of stores in the adjoining combs that they were not on. My belief is those colonies starved to death. The reason is this: In a

long, cold spell the bees will not go around the end of the frames or break cluster, and when all the honey is consumed they starve. Now, then, if those colonies had had a Hill device, or something of that description, would they have starved? I have not lost a colony in that way.

I think the reason most of the folks lose so many bees is that they do not understand them. They would do better if they would take the American Bee Journal, or some other good bee-paper.

FRED CARD.

Burns, Mich., May 17.

#### Honey & Beeswax Market Quotations.

CHICAGO, ILL., May 23.—The trade in comb honey is very light at this time of the year—as it is between seasons. Soon we will get the new crop, and it will come on a bare market. Just now what little comb sells brings 14c. for the best grades. Extracted, 5½@7c. All good grades of beeswax, 30c.

R. A. B. & Co.

CHICAGO, ILL., Mar. 18.—Demand is good for all grades of honey excepting dark comb. We quote: Fancy comb, 15c.; No. 1, 14c. Extracted, 5@6½c.

J. A. L.

KANSAS CITY, MO., May 20.—The demand for comb honey is light, with considerable on the market. Receipts of extracted are light—demand fair. We quote: No. 1 white comb, 1-lbs., 13@14c.; No. 2, 12@13c.; No. 1 amber, 12@13c.; No. 2, 8@10c. Extracted, 5@7c.

Beeswax, 25c.

C. C. C. & Co.

CINCINNATI, O., May 20.—The market is very quiet. No change since our last. We quote: Choice white comb honey, 12@16c. Extracted, 4@7c.

Beeswax is in good demand at 25@31c. for good to choice yellow.

C. F. M. & S.

PHILADELPHIA, PA., May 18.—Comb honey is in poor demand. Large stores are now waiting for the new crop. Extracted is in fair demand. Beeswax has declined some, but good sales keep market from being overstocked. We quote: Comb honey, 9c. Extracted, 4½@6c. Beeswax, 29@30c. W. A. S.

NEW YORK, N. Y., May 24.—White comb honey is well cleaned up. Considerable buckwheat remains on the market, and, as the season is about over, some of it will have to be carried over. Extracted is doing fairly well, with plenty of supply to meet the demand. New southern is arriving quite freely. We quote: Extracted, white, 6@6½c.; amber, 5@5½c. Southern, common, 45@50c. per gallon; choice, 60@65c.

While beeswax holds firm at 31@32c., we think it has reached top market and do not expect it to go higher.

H. B. & S.

#### List of Honey and Beeswax Dealers,

Most of whom Quote in this Journal.

##### Chicago, Ills.

J. A. LAMON, 43 South Water St.  
R. A. BURNETT & Co., 183 South Water Street.

##### New York, N. Y.

F. I. SAGE & SON, 183 Reade Street.  
HILDRETH BROS. & SEGELKEN,  
120 & 122 West Broadway.  
CHAS. ISRAEL & BROS., 110 Hudson St.  
I. J. STRINGHAM, 105 Park Place.

##### Kansas City, Mo.

C. C. CLEMOMS & Co., 423 Walnut St.

##### Buffalo, N. Y.

BATTERSON & Co., 167 & 169 Scott St.

##### Hamilton, Ills.

CHAS. DADANT & SON.

##### Philadelphia, Pa.

WM. A. SELSER, 10 Vine St.

##### Cincinnati, Ohio.

C. F. MUTH & SON, cor. Freeman & Central avs.

**A Grand Bee-Smoker** is the one offered by W. C. R. Kemp, Orleans, Orange Co., Ind. It has a 3-inch fire-barrel, burns all kinds of fuel, and is simple, efficient and durable. Send 100 cents for a sample smoker, and you will have a rare bargain.

## Doctor's Hints

By DR. PEIRO, Chicago, Ill.  
100 State Street.

#### Some Causes of Headache.

Decayed teeth are a frequent source of some of the most excruciating headaches, even though the teeth do not ache.

Excessive study of books, especially by lamp-light, often occasions serious headaches.

Indiscriminate use of tobacco, either smoking or chewing, can cause violent headaches.

Irregularity in eating, instead of at stated hours, frequently results in oppressive headaches.

An overloaded stomach usually produces a more acute, intense headache.

Constipation is another frequent source of severe headaches. A saline cathartic—salts—is the best and safest remedy.

A cold in the head often causes a stupefying headache, especially over the eyes and root of the nose. Cloths wrung in hot water and tightly held to the forehead often gives immediate relief.

Malaria is a potent cause for most painful and persistent headaches, for which proper remedies should be taken—better still, get away from malarial districts.

In hundreds of cases the headache has its origin in defective eye-sight or badly-fitting glasses. An oculist should be consulted; an optician won't do.

Bad ventilation—sleeping in close, dark rooms with little or no access to outer air—very often gives rise to protracted and severe headaches.

Grief and worry may very naturally cause obstinate headaches. People of hot temper and irritable disposition are seldom free from it. Hot water with half teaspoonful of cooking soda every hour most likely relieves it. Keep your temper!

Too heavy or tight clothing can occasion severe headaches.

Sick headaches are usually caused by some form of indigestion, for which a skilled physician had best be consulted.

Headaches of "plain drunks," as the police stations term it, are best disposed of by small doses of salts in hot water frequently repeated. If very faint, a little red-pepper may be added. But you're a fool if you do it again!

In many cases the most obstinate and violent headaches have been occasioned by tumors growing and pressing upon the brain. Medicines in such cases can only be palliative—nothing short of an operation and removal of the tumor (where this procedure is feasible) can effect a cure.

#### RUDY'S PILE SUPPOSITORY

Is guaranteed to cure Piles and Constipation, or money refunded. 50 cents per box. Send two stamps for circular and free Sample to MARTIN RUDY, Registered Pharmacist, Lancaster, Pa. NO POSTALS ANSWERED. For sale by all first-class druggists everywhere. Peter Van Schaack & Sons, Robt. Stevenson & Co., Morrison, Plummer & Co., and Lord, Owen & Co., Wholesale Agents, Chicago, Ills. Please mention the Bee Journal Nov 15



## "Northern Bred Queens"

Our Northern Bred Gray Carniolans and Golden Italian Queens Produce Hardy Bees that Winter Successfully.

We make Queen-Rearing a Specialty. We never saw Foul Brood or Bee-Paralysis.

Don't fail to send for Our Free Descriptive Price-List.

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Can do the work of four men using hand tools, in Rippling, Cutting-off, Milling, Rabbeting, Grooving, Gaining, Dadoing, Edging-up, Jointing Stuff, etc. Full Line of Foot and Hand Power Machinery. Sold on Trial. Catalogue Free.

SENECA FALLS MFG. CO.,  
46 Water St., SENECA FALLS, N. Y.  
25D12 Mention the American Bee Journal.

### Write to Wm. H. Bright—

For prices on all Improved Bee-Fixtures—Hives, Sections, Comb Foundation, Brood-Frames, Extractors, etc.,

At Bottom Prices.

Golden Italian Queens \$1.00 each, Free Price-List.

Wm. H. Bright, Mazeppa, Minn.  
19Dtf Please mention the Bee Journal.



BERKSHIRE, Chester White, Jersey Red and Poland China PIGS. Jersey, Guernsey and Holstein Cattle. Thoroughbred Sheep. Fancy Poultry, Hunting and House Dogs. Catalogue.

S. W. MITCHELL, Cochranville, Chester Co., Penna.  
13D26 Mention the American Bee Journal.

### The Adels—A New Strain of Bees

Friends, I shall be prepared to fill orders for Adel and Italian Queens June 1. Try them Warranted, \$1. Tested, \$1.50; Select Tes. \$2.23C

Joseph Erway, Havana, N. Y.  
Mention the American Bee Journal.



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THOMAS G. NEWMAN,  
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CHICAGO, ILLS.

### Orange-Blossom, Alfalfa or Sage

## HONEY

For Sale Cheap.

15Dtf C. W. Dayton, Florence, Calif.  
Mention the American Bee Journal.

### Barnes' Foot-Power Machinery.



Read what J. I. PARENT, of CHARLTON, N.Y., says:—"We cut with one of your Combined Machines, last winter 50 chaff hives with 7-in. cap, 100 honey-racks, 500 broad frames, 2,000 honey-boxes and a great deal of other work. This winter we have double the amount of bee-hives, etc., to make and we expect to do it with this Saw. It will do all you say it will. Catalogue and Price-List

Free. 45Ctf Address, W. F. & JOHN BARNES,  
No. 905 Ruby St., Rockford, Ill.  
Mention the American Bee Journal.

## Question-Box.

In the multitude of counsellors there is safety.—Prov. 11-14.

### T Supers or Section-Holders?

Query 974.—Which are better, T supers, or wide frames without top-bars, called "section-holders?"—Iowa.

E. France—I don't know.

J. M. Hambaugh—I don't know.

B. Taylor—I like T supers best.

Jas. A. Stone—I do not like either.

Dr. C. C. Miller—I like T supers better.

W. R. Graham—I prefer section-holders.

Eugene Secor—I use both, and like both.

R. L. Taylor—Neither. I would not use either.

Mrs. L. Harrison—I've no experience with either.

W. G. Larrabee—I think I should prefer T supers.

Mrs. J. N. Heater—I give preference to the T super.

Rev. M. Mahin—As I do not use either, I do not know.

Allen Pringle—Both inferior. I want wide-frames with top-bars.

C. H. Dibbern—I should prefer the section-holders with movable tops.

Chas. Dadant & Son—We would recommend T supers or section-crates.

Wm. M. Barnum—The T super. Wide-frames are an abomination in the land.

Rev. Emerson T. Abbott—I do not know. I have no use for either of them.

P. H. Elwood—I haven't used T supers, and wouldn't like to decide. Both are good.

H. D. Cutting—The section-holders may be a good arrangement, but I prefer a good T super.

Dr. J. P. H. Brown—I should prefer a section-crate or holder embracing the principle of the T supers.

Prof. A. J. Cook—I do not know. All depends upon which are most easily manipulated. Both are good.

G. M. Doolittle—I use wide-frames with top-bars, and consider them better than either of those mentioned.

J. E. Pond—There is some difference of opinion in regard to this matter, but I judge the evidence favors the T. I should not, however, throw away broad-frames, if I was fully supplied, for the purpose of using T supers in their place.

G. W. Demaree—I dumped into the waste corner—a sort of Valley of Hin-nom—"a great lot of "section-holders," ten years ago. I use the T section-case because it is the cleanest and most simple section-holder I have any knowledge of.

## Ready to Mail!

Untested Italian Queens are now ready to mail. Price, \$1.00 each; six for \$5.00; twelve for \$9.00.

T. R. CANADY,  
23A5t FALLBROOK, CALIF.  
Mention the American Bee Journal.

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WESTERN AGENTS H. P. MFG. CO.  
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**FOOLISH MAN?** Yes, but not more than you if you neglect your interests in caring for your Apples. Says when you make it with the Hyd-raulic press. CIDER Saves time money and fatigue. Makes more and better Cider easier and quicker. Write for Catalogue of Cider, Fruit Machinery, Spray Pumps, etc. Address as above.

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Also D. T. Hives, Shipping-Crates and Other Supplies.

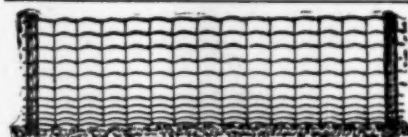
We have completed a large addition to our Factory, which doubles our floor room; we are therefore in better shape than ever to fill orders on short notice. Send for Price-List

J. FORNCROOK,  
WATERTOWN, Jeff. Co., Wis., Jan. 1st, 1894.

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If you want first-class ITALIAN QUEENS FOR BUSINESS, Foundation at Wholesale Prices. Hives, suited for the South, or SUPPLIES, send for Price-List—to

J. P. H. BROWN, AUGUSTA, GA.  
10A13t Mention the American Bee Journal.



### Don't Put a Tramp in Charge.

If obliged to employ one, give him a position where it will not harm you if he "goes wrong." Many farmers have lost heavily trying to save money on wages, so also on wire fences. Soft wire is CHEAP but non-elastic. It appears to work well while you are watching it, but when your back is turned it gives you the slip. It is safer to require references, and the best in the world are furnished by the

PAGE WOVEN WIRE FENCE CO., Adrian, Mich.  
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For Bee-Hives and Supplies.

Catalogue Free on Application.

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21A4t RIVER FALLS, Pierce Co., WIS.  
Mention the American Bee Journal

